

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

ASD356
5
N4

31-76



HOW TO MANAGE
Woodlands
For
Birds

How to Help Birders Watch Birds on Your Forest Land

Man has been an enthusiastic bird-watcher since the beginning of time. Birds have inspired songs, legends, and works of art. Two of mankind's most persistent dreams have been to sing like a bird and to fly like a bird.

Birds are an important part of a woodland scene. Esthetically, birds add color, lively motion, and a wide variety of songs and sounds. Ecologically, they help to spread seeds, keep insect populations in check, and provide food for other animals. Different species of birds have different habitat requirements, which is why many species can inhabit a small area.

One of the best regions in the United States for bird habitat is the central Appalachians. About 240 species of birds are attracted to the area's rich and varied vegetation and its abundant shrub understory.

This bounty of natural bird habitat makes the area a prime spot for identifying and developing habitat management guidelines. Because conditions there are varied and are fairly representative of hardwood forest conditions throughout much of the East, portions of guidelines developed for central Appalachia can apply to other areas as well. Animals such as ruffed grouse, white-tailed deer, and rabbits will benefit, too.



White-Breasted Nuthatch

Research biologists with the U.S. Forest Service's Northeastern Forest Experiment Station recently completed a set of guidelines for managing bird habitat in central Appalachia. Their goal was to enhance people's woodland experience by bringing them in



Barred Owl

close contact with many different individual birds and species. To do this, they translated ecological relationships into fairly simple management advice for owners or managers of about an acre or more of woodland that could be used for nature-oriented recreation.

The biologists advise managing habitat for birds that are conspicuous for their boldness, color, song, or size. Thirty-one such species and their nesting habits are listed on the back. The nesting habits of this group are representative of those of all central Appalachian birds.

What are the most likely spots for a rendezvous between birds and people? Places where people ordinarily go, such as secondary roads, trails, and streams near recreation sites are good choices. Most birds are very tolerant of human activity. Many make their homes in edge habitat, the borders between habitats of different types. In many cases, man's activities have helped to create these borders. Generally, the more complex the mix of types, the more diverse the bird species in an area.

The best time to find birds at home is when their fancy turns to thoughts of nests and eggs. The breeding season is also the time to keep in mind when managing bird habitat. Birds establish limited territories during this period, and most species will use the same habitat for nesting and escape cover. Many birds put away their drab winter-wear during spring and summer, and don their brightest plumage. In the spring migrating birds arrive, males sing almost continuously, and the warmer weather is the only invitation people need to go birding.

Variety of vegetative structure is the key to successful songbird habitat. Forests with herbaceous plants on

the ground, shrubs and vines, and trees of different heights, sizes, and shapes will provide nesting spots for birds of almost any preference—whether it be for the ground, shrubs or tree canopies. Variety among sizes and shapes of the plants seem more important than variety among the species of plants.

In managing bird habitat it's best to aim for a natural look. Adding nest boxes, plants, or supplemental habitat is useful when natural habitat is not immediately available, as when trees are too young to provide nesting spots.

Wildlife biologists say that trails are the key to bringing people and birds together. If properly planned, trails can enhance the local scenery and existing habitat. Trails can provide easy, quiet access to a variety of sites.

Of the three types of trails—walking, guided, and special-use (horseback, trail bikes, etc.)—the walking trail is most useful for birdwatching. On a walking trail, people can pursue their own interests at their own pace. A walking trail can be less rigorous in design than other kinds of trails, and it doesn't require intrusions such as signs.

Following are some specific guidelines for developing bird habitat:

Planning Trails

1. Know the characteristics of the property and plan the layout so that the trail passes by or through the most interesting sites, except "fragile" sites that people may abuse or damage.
2. Make sure the trail is safe as well as exciting.
3. Follow a closed-loop design, beginning and ending at the same point.
4. Try to maintain a one-way traffic flow.
5. Avoid long, straight stretches. Trails with curves and bends are longer, add an element of surprise and anticipation, and seem more natural. Straight stretches should not exceed 100 feet.

Choosing Sites

1. Concentrate management on the more moist and fertile sites. Swamps and marshes and other wet sites are often a center of activity for birds. Vegetation grows rapidly and lushly near water.
2. Drier sites are highly valuable, too, especially if they support a rich layer of low-lying vegetation. Some birds such as blue jays and ovenbirds prefer dry woodlands. It's best to include both dry and wet sites along a birding trail.

Managing Plants

1. Favor the most vigorous species of the required growth forms.
2. Maintain variety among plants that have one or more of these characteristics: form thickets (most shrubs, nearly all vines); have showy flowers or foliage; bear nuts or fleshy fruits. Try to establish mixtures of evergreen and deciduous plants, and leave some overmature, dying, or dead trees standing unless they are hazardous.
3. Encourage herbaceous vegetation such as grasses and common weeds. This provides homes for insects and seeds for birds in the fall and winter.



Blue Jay

Establishing Growth Stages

1. Maintain a moderate to dense understory among all stages of forest growth.
2. Break up large single-layer stands that have sparse understories.
3. Poletimber — young trees with diameters of 5-11 inches — is usually abundant. If other stages are scarce, increase them in this order:
 - a. vines, shrubs, seedlings
 - b. sawtimber
 - c. saplings
 - d. herbaceous growth.
4. Mix or intersperse the growth stages. This is important because many birds inhabit the edges between different stages.

Planning Stands*

*Here, a "stand" is any group of trees or other forest

growth that is sufficiently uniform to be distinguished from adjacent groups.

1. Mix the habitat conditions on a smaller scale than usual for managing timber or game animals. During the breeding season, the focal time for management, many species of birds stay within a half-acre of land.
2. Make the stands narrow—75 to 150 feet wide—to increase the length of edges. Curving or waving the stand border further increases the amount of edge, and looks more natural than straight edges.
3. Route the trails to enter and leave stands at narrow angles. Trail users will sense a gradual transition instead of an abrupt change between stands. They will have more opportunity to see bird activity along stand edges.

Maintaining the Habitat

1. Cut or girdle frequently to maintain early stages of forest growth.
2. Cut in the fall or winter to cause the least disturbance to birds.
3. Maintain an overstory canopy closure of about 50 and not more than 75 percent.
4. Use crown thinning rather than low thinning to open the canopy.
5. Keep livestock out. Grazing is harmful to bird habitat, except in a limited amount where undergrowth is undesirably thick.



Black-Capped Chickadee

Typical Nesting Habits of Selected Non-Game Forest-Dwelling Birds

Species	Usual nest height, feet	Concealment	Remarks
Louisiana waterthrush	0	Roots, logs, banks	Near water
Ovenbird	0	Dead leaves	Usually in dry soil
Whip-poor-will	0	Dead leaves, brush	Deep woods, ravines
Brown thrasher	0- 7	Thickets	Prefers thorny vines
Carolina wren	0-10	Cavities, thickets	Often in a building
Rufous-sided towhee	0- 3	Grass, forbs	Brushy openings or deep woods
Song sparrow	0- 6	Grass, thickets	Edges of woods
Yellowthroat	0- 2	Grass, vines	Moist locations
American goldfinch	5-15	—	Forks of shrubs, saplings, vines
American redstart	5-15	—	Forks of shrubs, saplings, vines
Cardinal	3-15	Thickets	Prefers vine tangles
Gray catbird	2-15	Thickets	Prefers vine tangles
Chipping sparrow	1- 4	Thickets	Often near building
Indigo bunting	1- 3	Thickets	Brushy areas in, near woods
Yellow-breasted chat	3-10	Thickets	Often in thorny vines
Yellow warbler	2-10	—	In shrubs, saplings
Red-eyed vireo	2-15	—	Suspended from forks
Robin	2-15	—	Often on a building
Wood thrush	4-15	Thickets	In forks or on a limb
Black-capped chickadee	8+	Cavities	Often in old woodpecker hole, bird box
Downy woodpecker	6-30	Cavities	Dead tree or dead part of live tree
Screech owl	6-30	Cavities	Woodpecker hole, tree cavity, building, bird box
Tufted titmouse	8+	Cavities	Often in old woodpecker hole, bird box
White-breasted nuthatch	2-60	Cavities	Stump, snag, old woodpecker hole, bird box
Northern (Baltimore) oriole	20+	None	Prefers broad-crowned trees
Blue jay	10-15	—	May prefer conifers
Broad-winged hawk	20-80	None	Builds in a large crotch
Crow	20-80	None	Usually in a large crotch
Eastern wood pewee	20-60	None	Often on edge of clearing
Great crested flycatcher	6-15	Cavities	Tree or stump, woodpecker hole, bird box
Scarlet tanager	16-55	None	Usually in mature woods



For more detail concerning bird habitat management,
ask for a copy of Research Note NE-192 from:

Information Services
Northeastern Forest Experiment Station
6816 Market Street
Upper Darby, Pa. 19082
(215) 596-1628

